Date: Thu, 17 Jun 93 21:30:10 PDT

From: Packet-Radio Mailing List and Newsgroup <packet-radio@ucsd.edu>

Errors-To: Packet-Radio-Errors@UCSD.Edu

Reply-To: Packet-Radio@UCSD.Edu

Precedence: Bulk

Subject: Packet-Radio Digest V93 #173

To: packet-radio

Packet-Radio Digest Thu, 17 Jun 93 Volume 93 : Issue 173

Today's Topics:

(none)

9600b mods needed

FAQ ??

Help with Alinco 112T 9600b mod

Ian Wade's NOSintro

looking for network sources of MSYS bbs software

Pactor Software

Sat Elements on Internet

TCP/IP coordination WNY

using a modem as a TNC... (3 msgs) using a Sound Blaster board as a TNC (2 msgs)

Send Replies or notes for publication to: <Packet-Radio@UCSD.Edu> Send subscription requests to: <Packet-Radio-REQUEST@UCSD.Edu> Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Packet-Radio Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/packet-radio".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

\_\_\_\_\_\_

Date: 17 Jun 93 20:06:19 GMT From: news-mail-gateway@ucsd.edu

Subject: (none)

To: packet-radio@ucsd.edu

UNSUBSCRIBE

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Date: 18 Jun 93 03:11:41 GMT From: news-mail-gateway@ucsd.edu

Subject: 9600b mods needed

To: packet-radio@ucsd.edu

I need a 9600b mod for an ICOM 45A, 440 rig and a Kenwood TR-7950, 2 mtr rig. Has anyone seen 9600b mods for these rigs? Thanks.

73's de Jack - kf5mg AMPRnet - kf5mg@kf5mg.ampr.org - 44.28.0.14 AX25net

- kf5mg@kf5mg.#dfw.tx.usa.na - work (817) 962-4409

- kf5mg@vnet.ibm.com - home (817) 488-4386 Internet \_\_\_\_\_\_

"I am Homer, of Borg...prepare to be assim -- ooo, donuts." \_\_\_\_\_\_

\_\_\_\_\_

Date: Thu, 17 Jun 93 06:04:58 GMT

From: news.cerf.net!pagesat!netsys!agate!howland.reston.ans.net!darwin.sura.net!

sgiblab!wattres!steve@network.UCSD.EDU

Subject: FAQ ??

To: packet-radio@ucsd.edu

>>What I want to know is, is there a packet<->internet gateway placed >>reasonably close to London ? And if not, how viable is it to run my

>No there isn't. I dunno what you are expecting from packet, but full-service >Internet access certainly don't exist. If you can run a full Internet node >down a crowded 1200baud radio link, I'll be \_very\_ impressed. Also, I presume >you know you need an amateur radio licence for this?

I'd presume so, even though I'm not terribly familiar with the rules in Britain. However, not all packet is at 1200 baud, just as not all ham radio is CW. There have been major improvements in that area, and 9600+ bps is springing up in quite a few places.

>to/from licensed amateurs.. although I suppose my Linux box is connected to >the local TCP/IP net so it is in theory an Internet host.. just not connected >to the rest of the net, that's all :-)

Well, I guess that makes it an internet host, but not an Internet host. Like my systems here at home. There's a small internet here, but it's not on the Internet.

>>machine as an internet site as if it were a unix box ? I expect this >>is in the FAO :-)

>Hmm.. we don't actually have an FAQ, do we?? Just wondering..

My goodness, how short everyone's memory is! Yes, there's a FAQ, and I post it on the 22nd of each month. It sounds like I should start posting it more often, perhaps? I have seen 5 or 6 articles from people wondering if there is one...

Anyhow, it will be posted next Tuesday, so I won't post it again now. You can FTP the most recently posted copy from rtfm.mit.edu, in the directory /pub/usenet/news.answers/radio/packet-faq. There is also a mail server at rtfm, which can be addressed as mail-server@rtfm.mit.edu. Send a message with only the word "help" in the BODY of the message for a general help file on the server.

73 de KD6GGD, and see/hear you on Field Day! I'll even be doing some packet.

- -

Steve Watt KD6GGD Packet: KD6GGD @ N0ARY.#N0CAL.CA.USA.NA ICBM: 121W 56' 53.1" / 37N 20' 16.7" Internet: steve@wattres.SJ.CA.US "A person reveals his character by nothing so clearly as the joke he resents."

-- G. C. Lichtenberg

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Date: 18 Jun 93 03:07:16 GMT From: news-mail-gateway@ucsd.edu

Subject: Help with Alinco 112T 9600b mod

To: packet-radio@ucsd.edu

I've freed up an Alinco 112t radio and want to mod it for 9600b. I have a copy of CQ mag's May, 1993 Packet Users' Notebook with the mod instructions for the Alinco 1200 radio. The instructions say to replace the existing crystal filter with a wider replacement. Has anyone just bypassed the filter all together? There are 3 pins on the filter. I guess that they are in, out and ground. Any idea how to figure which pins are what?

Also, the 1200 'data' radio looks like pin 6 is audio. On the 112t, pin 6 is n/c. There's no way to get to pin 6 to connect an audio wire. Has anyone figured out if pin 6 is 'routed' somewhere else in the radio so you could connect up the audio from the discriminator to pin 6 of the mic connector? If I can't use pin 6, I'll have to cut the wire going to the rear, speaker jack and use it.

Thanks.

Date: 16 JUN 93 22:14:27 From: pa.dec.com!trinty.enet.dec.com!merrell@decwrl.dec.com Subject: Ian Wade's NOSintro To: packet-radio@ucsd.edu In article <199306161724.AA12485@postoffice.mail.cornell.edu>, eb15@postoffice.mail.cornell.EDU (Ned Bade, Ned Bade) writes... >Dear Packet Radio Group, >Does anyone know where in the United States I might be able to >purchase a copy of Ian Wade's "NOSintro: An Introduction to the >KA9Q Network Operating System"? I am very interested in getting >a copy of it as soon as possible. Any leads (addresses + >telephone numbers) would be greatly appreciated. Also, if anyone >knows of other introductions to ka9q (aside from what is already >at the UCSD.EDU archive) that they would recommend, I would >greatly appreciate it. Thank you very much. > >Ned Bade >CIIFAD > >| Ned Bade >| eb15@cornell.edu >| jgei@crux2.cit.cornell.edu > | Cornell International Insitute for | >| Food, Agriculture and Development | >| Box 14, Kennedy Hall > | Cornell University >| Ithaca, NY 14853 USA >| Tel: (607) 255-3035 >| FAX: (607) 255-1005 I am aware of three sources for the book here in the US: ARRL, Newington CT CAPRA, Chicago (US mail orders only?)

I noted from a recent posting that TAPR is not carrying the book. It was CAPRA representatives that were selling it in the TAPR booth at Dayton (which is where I got my copy).

Computer Literacy Books, Cupertino CA

I have no connection with Ian or the publisher, but can recommend the book as being VERY helpful. I've been running the KA9Q software for a while now, but the book clarified a number of issues for me. I'd recommend it for anyone considering use of Phil Karn's software on most any platform - PC or otherwise.

### Greg

merrell@caldec.enet.dec.com Greg Merrell Internet: Pathworks Engineering
Digital Equipment Corp
Packet Radio: kc6tyj @ n0ary.#nocal.ca.usa.na
AppleLink: merrell@caldec.enet.dec.com@INTERNET#

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Date: 17 Jun 93 16:09:47 GMT From: news-mail-gateway@ucsd.edu

Subject: looking for network sources of MSYS bbs software

To: packet-radio@ucsd.edu

I'm looking for a network source for the

MSYS bbs software, (landline numbers as a last resort) :-)

e-mail would be appreciated.

Thanks in advance...

Rick DuBrava, N2JPQ

VOICE: (607) 721-4750 CAE - Link Software Engineering - M/S 522 INTERNET: rdubrava@link.com P.O. Box 1237 'There aren't enough hours

Binghamton, NY 13902-1237 in the day ....'

... usual disclaimers inserted here ...

Date: 17 Jun 1993 17:36:24 GMT

From: pravda.sdsc.edu!news.cerf.net!usc!howland.reston.ans.net!ux1.cso.uiuc.edu!

moe.ksu.ksu.edu!crcnis1.unl.edu!djw@network.UCSD.EDU

Subject: Pactor Software To: packet-radio@ucsd.edu Hello! Does anyone know if Lan-Link ia out with a version that supports Pactor? My E-mail address is djw@unl.edu and my packet address is WAOJRD@KOKKV.NE.USA.NA (I think!)

Thanks!

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Date: 17 Jun 93 19:09:03 GMT From: news-mail-gateway@ucsd.edu Subject: Sat Elements on Internet

To: packet-radio@ucsd.edu

I get my elements from AFIT (Air Force Institute of Technology). Just do an anonymous ftp to: archive.afit.af.mil (129.92.1.66 if no DNS), and cd to /pub/space. There are lots of elements posted. The file you probably want is amateur.tle.

Happy hunting!

73, Mark.

- -

Mark Morgida Asst Professor, D/EECS US Military Academy West Point, NY 10996

Internet: dm8981@eecs1.eecs.usma.edu
Packet: aa2ma@kd2lh.ampr.org

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Date: 17 Jun 93 19:57:02 GMT

From: mvb.saic.com!unogate!news.service.uci.edu!usc!math.ohio-state.edu!uwm.edu!

rpi!newsserver.pixel.kodak.com!kodak!eastman!kadsma!braun@network.UCSD.EDU

Subject: TCP/IP coordination WNY

To: packet-radio@ucsd.edu

TCP/IP numbers can be gotten via packet mail to ipnum@wb2psi. There is a readdressing plan which I will gladly mail to anyone who requests it. I can also post the complete packet address if need be. Please send inquires via internet to n2hkd@computronics.com or n2hkd@wb2psi.

We have distributed the readdressing architecture plan to as many as we knew about. If there are any interested parties feel free to contact me. This is for the ARRL WNY region.

We here in Rochester are looking for other tcp/ip groups that we can connect to and provide a larger network for.

- -

Curtis Braun (curtis@computronics.com) (n2hkd) braun@telstar.kodak.com Computronics, POBOX 1002 Fairport,NY 14450 Guest@Digital Telstar,Network Operations Center Kodak

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Date: Thu, 17 Jun 1993 11:06:17 GMT

From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!gatech! destroyer!newsrelay.iastate.edu!news.iastate.edu!vincent1.iastate.edu!jeffries@network.UCSD.EDU

Cubicate value a madem as a TNC

Subject: using a modem as a TNC...

To: packet-radio@ucsd.edu

This may be a dumb question, but since I don't know much about packet, here it is--

Can I use my modem as a TNC? The modem in question is a Hayes 2400EC, with V.42bis and MNP5. I'm thinking that it won't work, but I'm still curious. Thanks in advance for your help.

- -

Anthony Glen Jeffries Journalism and Mass Communication student Iowa State University, Ames, Iowa

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Date: Thu, 17 Jun 1993 13:45:49 GMT From: pau!splinter!mccarthy@uunet.uu.net

Subject: using a modem as a TNC...

To: packet-radio@ucsd.edu

In article <jeffries.740315177@vincent1.iastate.edu>, jeffries@iastate.edu (Anthony G Jeffries) writes:

|>

|> This may be a dumb question, but since I don't know much about packet, here
|> it is--

|>

|> Can I use my modem as a TNC? The modem in question is a Hayes 2400EC, with |> V.42bis and MNP5. I'm thinking that it won't work, but I'm still curious.

```
|> Thanks in advance for your help.
|>
|> --
|> Anthony Glen Jeffries
|> Journalism and Mass Communication student
|> Iowa State University, Ames, Iowa
```

The older Hayes smartmodems had a section in the back of the manual on how to use them for packet. Basically, you need to put the modem into half duplex and loopback mode so that it transmits and receives on the same tones. You will have to shut off error correction and compression as well since they are full duplex protocols and are not allowed by the FCC unless you are granted a STA to use a non-standard protocol.

Mike WA1UAR

-----

Date: 17 Jun 93 21:28:21 GMT

From: ogicse!emory!kd4nc!ke4zv!gary@network.UCSD.EDU

Subject: using a modem as a TNC...

To: packet-radio@ucsd.edu

In article <C8rq8D.Gnw@pau.synnet.com> mccarthy@splinter.synnet.com (Mike
McCarthy) writes:

>In article <jeffries.740315177@vincent1.iastate.edu>, jeffries@iastate.edu (Anthony G Jeffries) writes:

>|>

>|> This may be a dumb question, but since I don't know much about packet, here

>|> it is--

>|>

 $>\mid>$  Can I use my modem as a TNC? The modem in question is a Hayes 2400EC, with

>|> V.42bis and MNP5. I'm thinking that it won't work, but I'm still curious.

>|> Thanks in advance for your help.

>|>

>|> --

>|> Anthony Glen Jeffries

>|> Journalism and Mass Communication student

>|> Iowa State University, Ames, Iowa

>

>The older Hayes smartmodems had a section in the back of the manual on how >to use them for packet. Basically, you need to put the modem into half duplex >and loopback mode so that it transmits and receives on the same tones. You will >have to shut off error correction and compression as well since they are full >duplex protocols and are not allowed by the FCC unless you are granted a STA >to use a non-standard protocol.

Not quite correct. Ordinary packet uses Bell 202 tones. the Hayes 2400EC

doesn't support these. It uses Bell 212 tones at 1200 baud. The old Smartmodem, which operated at 300 baud, had a section in the manual about interfacing it to radio, but that was before packet came along. Packet is HDLC while phone modems operate async. In short, forget about using a Smartmodem for packet, it's not compatible with the packet standards.

Gary

\_ \_

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534 Shannon Way | Guaranteed!
Lawrenceville, GA 30244

You make it, | gatech!wa4mei!ke4zv!gary
We break it. | uunet!rsiatl!ke4zv!gary
Guaranteed! | emory!kd4nc!ke4zv!gary

-----

Date: 16 Jun 1993 21:00:15 -0700

From: pravda.sdsc.edu!news.cerf.net!usc!howland.reston.ans.net!math.ohio-

state.edu!cyber1.cyberstore.ca!van-bc!vanbc.wimsey.com!van-bc!vanbc.wimsey.com!

not-for-mail@network.UCSD.EDU

Subject: using a Sound Blaster board as a TNC

To: packet-radio@ucsd.edu

And while we're at it, has anyone used the SB for MSK \*(minimum shift keying) such as is used for the (around here) Differential GPS station on 320 KHz?

Thanks Mark

\_\_\_\_\_

Date: Thu, 17 Jun 1993 15:07:19 GMT

From: rit!isc-newsserver!ultb!cep4478@cs.rochester.edu

Subject: using a Sound Blaster board as a TNC

To: packet-radio@ucsd.edu

Some of these sound boards have an AGC on the input, though, which you cannot disable through software. I don't think I'd care for that on a digital modem design.

- -

Christopher E. Piggott, WZ2B President Rochester Institute of Technology Amateur Radio Club K2GXT cep4478@ultb.isc.rit.edu wz2b.ampr [44.69.0.1] wz2b @ WB2PSI.#WNY.NY.USA.NA CEP4478@RITVAXA.BITNET

-----

Date: Thu, 17 Jun 1993 12:45:25 GMT

From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!

darwin.sura.net!bogus.sura.net!udel!news.intercon.com!psinntp!laidbak!tellab5!

jwa@network.UCSD.EDU

To: packet-radio@ucsd.edu

References <C8q7Fw.u9@tegra.com>, <C8qECp.IyH@fc.hp.com>,

<1voq8f\$dmf@vanbc.wimsey.com>net

Subject : Re: using a Sound Blaster board as a TNC

With all this talk about a soundblaster, I thought I'd share this

### THE HAMBLASTER DSP

"The first sound board designed exclusively for Ham Radio"

## **HARDWARE**

The DSP25 is an inexpensive Digital Signal Processor that plugs into the 8 bit expansion port of an IBM PC or compatible computers. It provides audio connections to a receiver or transceiver for operating digital modes in the HF or VHF bands. It has an 8 bit TTL input/output port for interfacing to a Packet or all mode TNC. There is also a 16 bit I/O port on a 32 pin header connector to interface to a baby board which can contain a dual parallel DAC for connecting an X/Y tuning scope or other ancillary devices.

The Hamblaster can replace the TNC's analog filters, fsk demodulator or tone encoder. It can also be used as a digital audio filter for CW mode, a digital signal analyzer and a digital oscilloscope within the audio range. FSK signals are processed and converted to a TTL level to the 8 bit I/O port or they can be converted to an RS232 level and transfered to the audio out port. The FSK signal can be regenerated (eliminating 100% of the noise) and interfaced to a TNC's audio input using an analog to analog connection.

The A to A connection simplifies the "hook up" and still provides the advantage of improved error performance. The DSP25 consist of four basic circuits, the PC Host interface, a Texas Instruments 40 mHz TMS320C25 Digital Signal Processor chip, 32k words of RAM, and a Texas Instruments TLC32044C Analog Interface chip. It's constructed on an IBM PC/XT compatible 10" expansion PC board and the analog/digital connections are accessible on the rear bracket/panel.

### SOFTWARE

The Hamblaster uses a DOS windowing software that is user friendly and provides several modem controls and congigurations. A Windows 3.1 compatible version is under developement and will be available in October 93. Other software packages will include DTMF tone decoding Adaptive filtering, FFT's, function generator and Music synthesis.

Some software features will include diagnostics, a digital oscilloscope, demodulator and tone encoder control, adjustable carrier detect and analog interface control.

The Hamblaster bus arcitecture is simple and micro-commands will be available for third party software development.

For more information write to :

WILLCO Electronics, P.O> Box 788, New Lenox, IL. 60451

- - -

Jack Albert Fellow Radio Buff

Tele (708) 512-7854

Tellabs, Inc. FAX (708) 852-7346 4951 Indiana Ave. jwa@tellabs.com

Lisle, IL

Talking to you from a Sun Workstation

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Date: 17 Jun 93 06:46:47 GMT

From: ogicse!emory!wa4mei!ke4zv!gary@network.UCSD.EDU

To: packet-radio@ucsd.edu

References <1993Jun16.094748.26829@ke4zv.uucp>, <1vnlafINNabc@network.ucsd.edu>,

<C8q8FI.C4A@athena.cs.uga.edu>

Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: Digital microwave project

In article <C8q8FI.C4A@athena.cs.uga.edu> mcovingt@aisun3.ai.uga.edu (Michael Covington) writes:

>

>There is an ongoing muddle arising from the fact that transmission of >music (as audio) is forbidden, but transmission of video programs with >incidental music is permitted.

>

>If ultimate intent is to prohibit "broadcasting of entertainment to

>the general public" then the FCC needs to address the fact that some >of these video programs are no less "entertaining" than music would >be.

>

>I would prefer seeing them drop the ban on music in bands where >fast-scan ATV is permitted (and where there is little need to conserve >spectrum).

I'd prefer the FCC to get out of the content regulation business altogether. But that's not going to happen because of the political situation. The urge to control and social engineer is too strong. With the rise in popularity of talk radio, who's to say normal amateur radio activities aren't entertaining the public. There's certainly enough interest in scanners. Perhaps we need regulations to make amateur talk less interesting. Naw! that's already the case too often. :-)

# Gary

- -

Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 |

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Date: 17 Jun 93 05:24:26 GMT

From: ogicse!emory!wa4mei!ke4zv!gary@network.UCSD.EDU

To: packet-radio@ucsd.edu

 ${\tt References~<1v171pINN79h@network.ucsd.edu>,~<1993Jun16.094748.26829@ke4zv.uucp>,}$ 

<1vnlafINNabc@network.ucsd.edu>

Reply-To : gary@ke4zv.UUCP (Gary Coffman) Subject : Re: Digital microwave project

In article <1vnlafINNabc@network.ucsd.edu> brian@nothing.ucsd.edu (Brian Kantor)
writes:

>

>This isn't directly relevant, Gary, but was the citing FCC officer the >same one who is rumoured to have cited his wife for failing to identify, >and was responsible for the infamous "900 number packet message" >debacle? I ask because it's about the right part of the country....

No, it was the Field Engineer who cited the DeKalb police for transmitting false and misleading signals by mounting an old radar unit on a road sign to fool motorists into thinking there was a speed trap ahead.

Gary

\_ \_

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Destructive Testing Systems | we break it.
534 Shannon Way | Guaranteed!
Lawrenceville, GA 30244 |

You make it, | gatech!wa4mei!ke4zv!gary
we break it. | uunet!rsiatl!ke4zv!gary
Guaranteed! | emory!kd4nc!ke4zv!gary

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Date: Thu, 17 Jun 93 20:01:34 GMT

From: netcomsv!netcom.com!netcomsv!orchard.la.locus.com!prodnet.la.locus.com!

lando.la.locus.com!dana@decwrl.dec.com

To: packet-radio@ucsd.edu

References <621@comix.UUCP>, <C8qE29.Iqy@fc.hp.com>, <1993Jun17.150719.11820@ultb.isc.rit.edu> Subject : Re: using a Sound Blaster board as a TNC

In article <1993Jun17.150719.11820@ultb.isc.rit.edu> cep4478@ultb.isc.rit.edu
(C.E. Piggott ) writes:

>Some of these sound boards have an AGC on the input, though, which >you cannot disable through software. I don't think I'd care for >that on a digital modem design.

Au contrare, if the AGC is reasonable, then it is a win. With an 8 bit converter, you have only 48 dB of dynamic range, which is easy to over-run if you aren't careful. With AGC, you become much less sensitive to overload. Furthermore, many modem designs which use PLLs need AGC at some point; if you don't have it in hardware, you have to do it in software.

- -

- $\star$  Dana H. Myers KK6JQ  $\;\;$  | Views expressed here are  $\;\star$
- $\star$  (310) 337-5136 | mine and do not necessarily  $\star$
- \* dana@locus.com DoD #466 | reflect those of my employer

\*

 $\star$  This Extra supports the abolition of the 13 and 20 WPM tests  $\star$ 

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End of Packet-Radio Digest V93 #173 \*\*\*\*\*\*\*\*\*\*